

ABSTRACT

A method for examination of a subject comprises the steps of:
administering (32) a contrast-enhancing agent into a subject
(7, 42) to be examined, the contrast-enhancing agent
5 introducing density variations in the subject; directing (33)
ionizing radiation (3) towards the subject; and detecting (34)
ionizing radiation spatially resolved as transmitted through
the subject, while Compton scattered radiation (3a, 3c) in the
subject is essentially prevented from being detected. The
10 ionizing radiation directed towards the subject is provided
within a spectral range so that more photons of the ionizing
radiation are Compton scattered than absorbed through the
photoelectric effect in the subject to thereby detect the
density variations introduced by the contrast-enhancing agent
15 in the subject spatially resolved.